Capacity Area A3 Topic 1 Deliverable 1-2

Flat plate demonstrator via Low viscosity melt route (in-plane/out-of-plane) (originally planned in 2016)

The goal of producing simple geometries (flat plates) as a fundamental demonstrator was achieved early this year for the “low viscosity melt route”. Two main different concepts have been explored: “in plane / out of plane” with close cooperation between the involved teams (Michaud/Dransfeld). Laboratory set-ups were designed and built. These set ups allowed to provide first prototypes, initial characterization of the process and identifying crucial process parameters. Practical difficulties and shortcomings of the laboratory set-up were identified and will be improved in Phase II.

Figure 1.1. Laboratory set-up and obtained plate. Plate dimension 90 x 150 x 3 mm

Thanks to successful cooperation with industry, demonstrator plates of bigger dimension could be produced at the beginning of this year so that the MS has already been reached with minor delays.

Figure 1.2. Industrial equipment and resulting demonstrator.